

Application Serial No. 10/043898
Examiner: D. Nguyen
Art Unit: 2814

PATENT
M&G No. 10921.0110US01

Remarks

Reconsideration is respectfully requested in view of the above amendments and following remarks. Revisions of claims 1 and 2 are supported, for instance in Figures 2 and 5. Non-elected claims 7-12 are canceled without prejudice or disclaimer. No new matter has been added. Claims 1-6 are pending.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Höhn et al. (U.S. Patent No. 6,245,259) in view of JP 4-196601 (Nagai et al.). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments.

Claim 1 recites a semiconductor device that includes a semiconductor ship having outer surfaces coated with a coating film, where the coating film is formed of amorphous fluoro-resin (Figures 2 and 5). The present invention provides a semiconductor device where the semiconductor is protected from breakage during formation of the resin package (page 8, lines 15-23). The amorphous fluoro-resin coating film provides good compression resistance (page 11, lines 3-10).

Höhn et al. discloses a coating film 4 covering a semiconductor chip. However, Höhn et al. does not teach or suggest the features as required by claim 1. As stated in the Office Action, Höhn et al. fails to disclose the coating film formed of an amorphous resin. Particularly, Höhn et al. aims to provide a wavelength-converting casting mass, which has a specific composition including an epoxy casting resin and a luminous substance (col. 8, lines 12-23). In fact, this specific composition is used as a material 5 for the coating film 4 (col. 9, lines 14-22). Thus, Höhn et al. does not teach the features of the claim 1, and Applicants respectfully submit that there is no reasonable motivation to replace the specific composition of Höhn et al. with other materials, namely the amorphous fluoro-resin of the claimed invention.

JP 4-196601 discusses using an amorphous fluoro-resin, such as polytetrafluoroethylene, to form a separation layer 7 between a center conductor 5 and a ground plane 6. However, there is no suggestion or motivation to combine the teachings of JP 4-196601 with Höhn et al. to derive the features of claim 1. JP 4-196601 uses its fluoro-resin film as an insulating separator inside its device, and does not provide for the fluoro-resin film to be an outside protective coating

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(Figures 1 and 3). Moreover, even if the teachings of Höhn et al. and JP 4-196601 could be combined, which Applicants do not concede, the cited references fail to provide a coating film on outer surfaces of the semiconductor chip. For at least these reasons, Höhn et al. and JP 4-196601, either alone or in combination, do not teach or suggest claim 1. Applicants respectfully submit that claim 1 and dependent claims 2-6 are patentable over the cited references.

Favorable consideration and withdrawal of the rejection are respectfully requested.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Höhn et al. (above) in view of JP 4-196601 (above) and in further view of Manteghi (U.S. Patent No. 6,046,075). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments.

Höhn et al. and JP 4-196601 have been discussed in detail. Claim 2 depends upon and further limits claim 1, which is discussed above as being patentable.

Manteghi does not provide what is missing from Höhn et al. and JP 4-196601. Manteghi does not disclose a semiconductor chip having outer surfaces coated with a coating film being an amorphous fluororesin. For at least these reasons, Manteghi does not remedy the deficiencies of Höhn et al. and JP 4-196601, and Applicants respectfully submit that claim 2 is patentable over the references cited.

Withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Höhn et al. (above) in view of JP 4-196601 and further in view of Kadokura (U.S. Patent No. 5,170,009). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments.

As above, Höhn et al. and JP 4-196601 have been discussed in detail. Claim 4 depends upon and further limits claim 1, which is discussed above as being patentable.

Kadokura does not provide what is missing from Höhn et al. and JP 4-196601. Kadokura does not disclose a semiconductor chip having outer surfaces coated with a coating film being an amorphous fluororesin. For at least these reasons, Kadokura does not remedy the deficiencies of Höhn et al. and JP 4-196601, and Applicants respectfully submit that claim 4 is patentable over the references cited.

Withdrawal of the rejection is respectfully requested.

Application Serial No. 10/043898
Examiner: D. Nguyen
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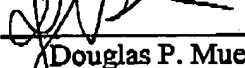
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M&G No. 10921.0110US01

With the above amendments and remarks, Applicants believe that the claims pending in this patent application are in a condition for allowance. Favorable consideration is respectfully requested. If any further questions arise, the Examiner is invited to contact Applicants' representative at the number listed below.

Respectfully Submitted,

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